

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1-4. (Canceled)

5. (Currently Amended) A liquid crystal display device comprising pixels, wherein each of said pixels has $n \times m$ (n and m are both natural numbers equal to or greater than 2) memory circuits, n gate signal lines, n TFTs having gate electrodes, and a D/A converter for converting n bit digital signals stored in said $n \times m$ memory circuits into analog signals, **[[and]]**

wherein said each of said pixels stores digital signals corresponding to m frames in the $n \times m$ memory circuits, and

wherein each of said gate electrodes is connected to a corresponding one of said n gate signal lines.

6. (Canceled)

7. (Canceled)

8. (Currently Amended) A liquid crystal display device comprising pixels, each of said pixels comprising:

a liquid crystal element; and

a source signal line, n (n is a natural number equal to or greater than 2) gate signal lines, n TFTs having gate electrodes, n memory circuits, and a D/A converter,

wherein each of said gate electrodes is connected to a corresponding one of said n gate signal lines, and each of said n TFTs has a source region and a drain region, one of which is connected to said source signal line and the other of which is connected to an input terminal of one of said n memory circuits,

wherein an output terminal of each of said n memory circuits is connected to an input terminal of said D/A converter, and

wherein an output terminal of said D/A converter is connected to said liquid crystal element.

9. (Canceled)

10. (Previously Presented) A liquid crystal display device according to claim 8, wherein: said liquid crystal display device has a source signal line driving circuit including shift registers, first latch circuits, second latch circuits, and switches,

said first latch circuits hold n bit digital signals upon receiving sampling pulses from said shift registers until said n bit digital signals are transferred to said second latch circuits, and

said switches select said n bit digital signals that have been transferred to said second latch circuits one bit at a time to input said selected signals into said source signal line.

11. (Original) A liquid crystal display device according to claim 8, wherein said liquid crystal display device has a source signal line driving circuit including shift registers, first latch circuits, and second latch circuits, and

wherein said first latch circuits hold 1 bit digital signals upon receiving sampling pulses from said shift registers until said 1 bit digital signals are transferred to said second latch circuits.

12-32. (Canceled)

33. (Previously Presented) A liquid crystal display device according to claim 5, wherein

said memory circuits and said D/A converter are arranged so as to overlap a source signal line.

34-36. (Canceled)

37. (Previously Presented) A liquid crystal display device according to claim 5, wherein said memory circuits and said D/A converter are arranged so as to overlap a gate signal line.

38-46. (Canceled)

47. (Previously Presented) A liquid crystal display device according to claim 5, wherein said memory circuits are formed over one selected from the group consisting of a glass substrate, a plastic substrate, a stainless steel substrate, and a single crystal wafer.

48. (Previously Presented) A liquid crystal display device according to claim 8, wherein said memory circuits are formed over one selected from the group consisting of a glass substrate, a plastic substrate, a stainless steel substrate, and a single crystal wafer.

C
49-52. (Canceled)

53. (Previously Presented) A liquid crystal display device according to claim 5, wherein said liquid crystal display device is incorporated in one selected from the group consisting of a mobile telephone, a video camera, a mobile computer, a head mount display, a television set, a portable electronic book, a personal computer, and a digital camera.

54. (Previously Presented) A liquid crystal display device according to claim 8, wherein said liquid crystal display device is incorporated in one selected from the group consisting of a mobile telephone, a video camera, a mobile computer, a head mount display, a television set, a portable electronic book, a personal computer, and a digital camera.

55-69. (Canceled)

70. (Currently Amended) A liquid crystal display device comprising pixels, wherein each of said pixels has a liquid crystal element, $n \times m$ (n and m are both natural numbers equal to or greater than 2) memory circuits, n gate signal lines, n TFTs having gate electrodes, and a D/A converter for converting n bit digital signals stored in said $n \times m$ memory circuits into analog signals, **[[and]]**

wherein each of said pixels stores digital signals corresponding to m frames, and wherein each of said gate electrodes is connected to a corresponding one of said n gate signal lines.

71. (Previously Presented) A liquid crystal display device according to claim 70, wherein said memory circuits and said D/A converter are arranged so as to overlap a source signal line.

C 72. (Previously Presented) A liquid crystal display device according to claim 70, wherein said memory circuits and said D/A converter are arranged so as to overlap a gate signal line.

73. (Canceled)

74. (Previously Presented) A liquid crystal display device according to claim 70, wherein said memory circuits are formed over one selected from the group consisting of a glass substrate, a plastic substrate, a stainless steel substrate, and a single crystal wafer.

75. (Previously Presented) A liquid crystal display device according to claim 70, wherein said liquid crystal display device is incorporated in one selected from the group consisting of a mobile telephone, a video camera, a mobile computer, a head mount display, a television set, a portable electronic book, a personal computer, and a digital camera.

76. (Currently Amended) A liquid crystal display device comprising pixels, each of said pixels comprising:

a source signal line, n (n is a natural number equal to or greater than 2) gate signal lines, n TFTs having gate electrodes, n memory circuits, and a D/A converter,

wherein each of said gate electrodes is connected to a corresponding one of said n gate signal lines, and each of said n TFTs has a source region and a drain region, one of which is connected to said source signal line and the other of which is connected to an input terminal of one of said n memory circuits,

wherein an output terminal of each of said n memory circuits is connected to an input terminal of said D/A converter, and

wherein an output terminal of said D/A converter is connected to said liquid crystal element.

C 77. (Previously Presented) A liquid crystal display device according to claim 76, wherein: said liquid crystal display device has a source signal line driving circuit including shift registers, first latch circuits, second latch circuits, and switches,

said first latch circuits hold n bit digital signals upon receiving sampling pulses from said shift registers until said n bit digital signals are transferred to said second latch circuits, and

said switches select said n bit digital signals that have been transferred to said second latch circuits one bit at a time to input said selected signals into said source signal line.

78. (Previously Presented) A liquid crystal display device according to claim 76, wherein said liquid crystal display device has a source signal line driving circuit including shift registers, first latch circuits, and second latch circuits, and

wherein said first latch circuits hold 1 bit digital signals upon receiving sampling pulses from said shift registers until said 1 bit digital signals are transferred to said second latch circuits.

79. (Canceled)

80. (Previously Presented) A liquid crystal display device according to claim 76, wherein said memory circuits are formed over one selected from the group consisting of a glass substrate, a plastic substrate, a stainless steel substrate, and a single crystal wafer.

C 81. (Previously Presented) A liquid crystal display device according to claim 76, wherein said liquid crystal display device is incorporated in one selected from the group consisting of a mobile telephone, a video camera, a mobile computer, a head mount display, a television set, a portable electronic book, a personal computer, and a digital camera.
